

# Waterbody Data Form

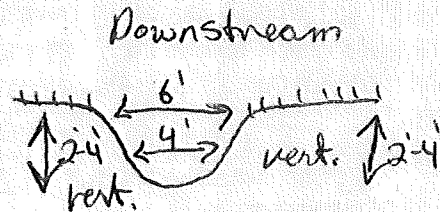
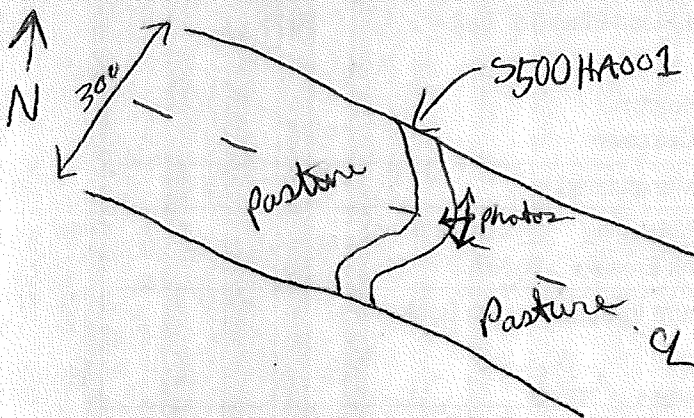
S500HA001

☐ Centerline ☐ Re-Route ☐ Access Road ☐ Ancillary Facility ☐ Transmission Line ☒ Other 166-01

Centerline ID: 3/26/10	Project Designated Name: Keystone XL - Phase IV	
Date: 10/29/10	Client/Project Name: TransCanada-Trow-KXL-PIV	Milepost Enter/Exit:
Team: B500	State/County: SD-Harding	Quad Name: NA
Logbook No.: 1	Logbook Page No.: 3-4	Tract No.: ML-SD-HA-570

Drawing (Please provide orientation arrow, all features identified, location to centerline, etc.)

Photo 2: 001 N, 002 W, 003 S



Waterbody Type:	<input type="checkbox"/> Lake <input type="checkbox"/> Pond <input type="checkbox"/> Borrow Pit <input checked="" type="checkbox"/> Stream <input type="checkbox"/> Ag. Ditch <input type="checkbox"/> Other	
Stream Flow:	<input type="checkbox"/> Fast <input type="checkbox"/> Moderate <input type="checkbox"/> Slow <input type="checkbox"/> Very Slow <input checked="" type="checkbox"/> None	
Flow Type:	<input type="checkbox"/> Perennial (Flows year round) <input type="checkbox"/> Intermittent (Flows <3 month) <input type="checkbox"/> None <input type="checkbox"/> Seasonal (Continuous flow ≥ 3 months) <input checked="" type="checkbox"/> Ephemeral (Flows only in response to rainfall)	
Direction of Flow:	<input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/> E <input type="checkbox"/> SE <input checked="" type="checkbox"/> S <input type="checkbox"/> SW <input type="checkbox"/> W <input type="checkbox"/> NW <input type="checkbox"/> No Flow	
OHWM Width (ft.):	4'	
Sinuosity:	<input type="checkbox"/> Braided <input type="checkbox"/> Meandering <input checked="" type="checkbox"/> Straight <input type="checkbox"/> N/A	
Stream Width (ft.):	ToB = 6'	Water Surface (At Crossing Location) 0'
Stream Depth (ft.):	<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1-3 <input type="checkbox"/> 3-6 <input type="checkbox"/> 6-12 <input type="checkbox"/> 12-18 <input type="checkbox"/> 18-24 <input type="checkbox"/> 24-36 <input type="checkbox"/> 36-48 <input type="checkbox"/> 48-60 <input type="checkbox"/> 60+	
OHWM Indicators:	Bent veg, Scour.	
Bank Height (ft.): (Looking Downstream)	Left: <input checked="" type="checkbox"/> 0-2 <input type="checkbox"/> 2-4 <input type="checkbox"/> 4-6 <input type="checkbox"/> 6-8 <input type="checkbox"/> 8+ Right: <input type="checkbox"/> 0-2 <input checked="" type="checkbox"/> 2-4 <input type="checkbox"/> 4-6 <input type="checkbox"/> 6-8 <input type="checkbox"/> 8+	
Bank Slope: (Looking Downstream)	Left: <input type="checkbox"/> 4:1 <input type="checkbox"/> 3:1 <input type="checkbox"/> 2:1 <input type="checkbox"/> 1:1 <input checked="" type="checkbox"/> Vertical Right: <input type="checkbox"/> 4:1 <input type="checkbox"/> 3:1 <input type="checkbox"/> 2:1 <input type="checkbox"/> 1:1 <input checked="" type="checkbox"/> Vertical	

## Qualitative Attributes

S500 HA 441

Water Appearance:			
<input type="checkbox"/> Clear	<input type="checkbox"/> Turbid	<input type="checkbox"/> Sheen on Surface	<input type="checkbox"/> Floating Algal Mats
<input type="checkbox"/> Slightly Turbid	<input type="checkbox"/> Very Turbid	<input type="checkbox"/> Greenish Color	<input type="checkbox"/> Obvious Surface Scum
<input checked="" type="checkbox"/> No Flow	<input type="checkbox"/> Other: No H <sub>2</sub> O		
Stream Substrate %: clay/silt			
Aquatic Habitats:			
<input type="checkbox"/> Sand Bar	<input type="checkbox"/> Gravel Riffle	<input checked="" type="checkbox"/> In-stream Emergent Plant	% Cover: 5%
<input type="checkbox"/> Gravel Bar	<input type="checkbox"/> Deep Pools	<input type="checkbox"/> In-stream Submerged Plant	% Cover:
<input type="checkbox"/> Mud Bar	<input type="checkbox"/> Bank Root Systems	<input type="checkbox"/> Fringing Wetlands	Characteristics:
<input type="checkbox"/> Undercut Banks	<input type="checkbox"/> Overhanging Trees/Shrubs	<input type="checkbox"/> None	
Aquatic Organisms Observed: NONE			
Riparian Zone:			
Width of Natural Vegetation Zone from Edge of Active Channel out to Flood Plain (ft): Left - 5' Right - 5'			
Vegetative Layers: <input checked="" type="checkbox"/> Herbs <input type="checkbox"/> Shrubs <input type="checkbox"/> Trees <input type="checkbox"/> Multiple			
Significant Bare Areas Within Riparian Zone <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown			
Evidence Of Non-Buffered Concentrated Flows: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown			
Tributary Condition: <input type="checkbox"/> Natural <input type="checkbox"/> Artificial (Man-Made) <input checked="" type="checkbox"/> Manipulated			
Channel Condition:			
<input type="checkbox"/> Channelization/Braiding	<input type="checkbox"/> Unnatural Straightening	<input type="checkbox"/> Downcutting	
<input type="checkbox"/> Dikes/Berms	<input type="checkbox"/> Excessive Bank Erosion	<input checked="" type="checkbox"/> N/A	
Disturbances:			
<input type="checkbox"/> Livestock Access to Riparian Zone	<input type="checkbox"/> Manure In Stream or On Banks		
<input type="checkbox"/> Waste Discharge Pipes Present			
<input checked="" type="checkbox"/> Other: Culvert under Ladner/River Road			
Habitat Characteristics, Aquatic, and Terrestrial Diversity Description:			
Habitat ID Number: NA			
Comments: W/in steep pasture. No flow.			
Snow berry, sages, smooth brome, wheat grass.			
Stream Quality: <input type="checkbox"/> High <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Low			